

49

DART AEROSPACE LTD	Work Order:	21786
Description: Pedal Arm	Part Number:	D3206-1
Dwg: D3206 Rev. A	Qty:	4
Ref:		Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveler	KJ	04.10.25	4
2	PG	Issue P/O: <u>1007023</u> Email or Ship DXF file to vendor Laser Cut D3206-1 as per Dwg D3206 Material release note is required		11 04-01-18	4
3	RG	Receive and Inspect for transit damage Ensure material release note is attached	CD	05/01/05	4
4	QC6	Inspect dimensions as per Dwg D3206	Z	05-01-18	4
5	GA	Deburr if necessary	Z	05-01-18	4
6	FP	Powder Coat Grey Sandtex (Ref: 4.3.5.6) per QSI 005 4.3	MM	05-01-19	4
7	QC3	Inspect Powder Coat	Z	05-01-19	4
8	ST	Identify and Stock	Z	05-01-19	4
9	AC	Cost / part <u>89.86</u>	SAC	05-01-21	4
10	DC	Close W/O <u>89.86</u> Inspect Level 21	KJ	05.01.24	4

Rev	Date	Change	Revised By	Approved
A	04.04.15	New issue	KJ/RF	<u>SP/11</u>

RELEASED

11/04-05/18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

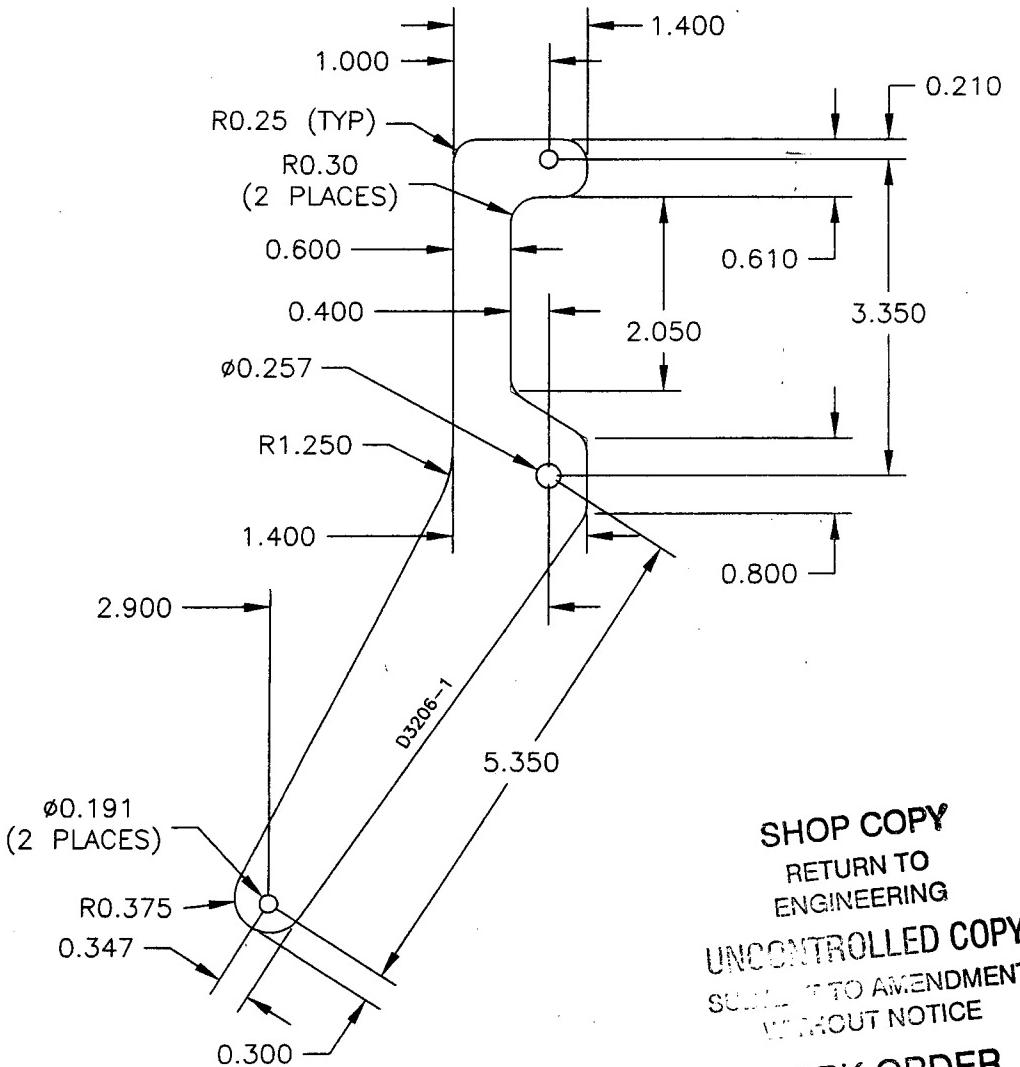
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

DART

DESIGN <i>RT</i>	DRAWN BY <i>RT</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>RT</i>	APPROVED <i>RT</i>	DRAWING NO.	REV. A
		D3206	SHEET 1 OF 1
DATE	TITLE		SCALE
04.01.27	PEDAL ARM		1:2
A	04.01.27	NEW ISSUE	

RELEASED
04.04.05 RT
NOTES:

- 1) BREAK ALL UNMARKED SHARP CORNERS 0.005 TO 0.010
- 2) MATERIAL: AISI 4130N SHEET, 11 GAUGE (M4130N-S125)
- 3) FINISH POWDER COAT GREY SANTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 4) ENGRAVE DART P/N AS SHOWN
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Oct 21, 2004
03:29 pm

Work Order No : 0021786
 Project Name : D3206-1
 Project For : WK449
 Work Order Type : Main
 Main WO Number :
 House Part Number : D3206-1
 Description : Pedal Arm
 Manufactured : Yes
 Amount Req'd : 4
 Amount Done : 0
 Start Date : 10-21-04
 Est Finish Date : 11-30-04
 Act Finish Date :
 Drawings Reqd : No
 Ok for Approval :
 Approval Rec'd :

Department Code:
 Burden Flags : NNNNNNN
 WO Status : Open
 Invoice State : Not Invoiced
 Invoice Date :
 Invoice Number :
 Invoice Amount : 0.00
 Order Entry No :
 OE Value : 0.00
 Est Margin : 0.000%
 Actual Margin : 0.000%
 \$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00	0.00	0.00
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00	0.00	0.00
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00	0.00	0.00
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00	0.00	0.00
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00	0.00	0.00
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00	0.00	0.00
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00	0.00	0.00
Total Cost :	0.00	0.00	0.00	0.00	0.00
Margin :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/ (Loss) :	0.00	0.00

BENEDICT-MILLER INC.

LYNDHURST NJ

REPORT OF CHEMICAL AND PHYSICAL TESTS

3/30/99

INDUSTRIAL LASER CUTTING
#7 - 7504 VANTAGE PLACE
DELTA BRITISH COL
CANADA V4G 1A5 00000-0000

P.O.#: 2303990-01
ORD#/LN#: 489101/12.00

.125" HR ALLOY 4130 AQ ANN SHEET PO 36" X 72"
2 PCS. 188 LBS. HEAT#: 2134252

Decarb=72/74 RA
AMS 2301G *J

AMS 6350H

CHEMICAL ANALYSIS

Carbon	(C)	.300
Manganese	(MN)	.440
Phosphorus	(P)	.008
Sulphur	(S)	.001
Silicon	(SI)	.220
Lead	(PB)	
Nickel	(NI)	.020
Chromium	(CR)	.830
Molybdenum	(MO)	.160
Copper	(CU)	.020
Vanadium	(V)	.005
Tungsten	(W)	
Tin	(SN)	.002
Cobalt	(CO)	
Aluminum	(AL)	.047

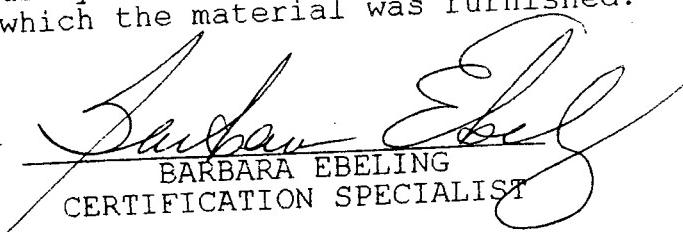
PHYSICAL PROPERTIES

Tensile	:	83990	PSI
Second Tensile	:	83990	PSI
Yield	:	56790	PSI
Second Yield	:	56790	PSI
Elongation	:	27 %	in 2 "
Second Elongation	:	27 %	in 2 "
%-Reduction-of-Area	:	%	
Second %-Red-Of-Area	:	%	
Bend-Test	:	OK	
Heat-Treat	:	35/34	
Hardness	:	82	RB
Macro	:	-	-
Decarb	:		
Grain-size	:		
Jominy-Hardenability	:	/ - / - /	
Frequency/Severity	:	.000 /	.000

We hereby certify that the chemical and physical properties shown above are a true copy of original test reports furnished to us by the producing mill covering the heat or lot from which the material was furnished.

BENEDICT MILLER

By

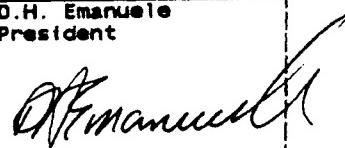

BARBARA EBELING
CERTIFICATION SPECIALIST

*** W C I S T E E L ***
 METALLURGICAL SERVICES INC.
 1040 PINE AVE. SE
 WARREN, OHIO 44483-6528

033803

MELTED AND MANUFACTURED IN USA	PURCHASE ORDER: 08/07/98 5414
CERTIFICATE OF TESTS	DATE/INVOICE: 12/02/98 888183759 WCI ORDER: 218 19 19789 01
SOLD TO: BENEDICT-MILLER INC P O BOX 912 LYNDHURST NJ 07071	SHIP TO: BENEDICT-MILLER INC MARIN AVE & ORIENT WAY LYNDHURST NJ 07071
<p>I certify that the properties of the items tested are true and accurate. Material was sampled, tested and inspected in accordance with the methods prescribed in the governing specifications. Subject material also conforms to the requirements of the governing specifications.</p> <p>This report shall not be reproduced except in full.</p>	

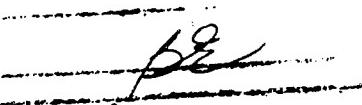
D.H. Emanuel
President



Item	Specification and Description	03:00:43
	HR SHEET ALLOY ULTIMET + SPEC AMS-8350 H AMS 2301 G ASTM-A-506-91 AISI-4130 FINE GRAIN AIRCRAFT STRL Q ANN P&O T/R LIGHT WT LIFT SPECIAL TEST	
1	.125N X 38.000 CE X 72	
	HEAT-NO H237501 COIL NUMBERS 2134252 H237501 1 H237501 2 H237501 3 H237501 4 H237501 5 I336101R 1 I336101R 2 I336101R 3 I336101R 4	
	HEAT-NO C MN P S SI CU NI CR 2134252 .30 .44 .008 .001 .22 .02 .02 .83 MO SN AL V CB B TI ZR .18 .002 .047 .005 .001 .0002 .003 CA CE SB H N O .0019 .000	
TI	01 C T/R FQA CERT TO INCLUDE ALL AQ TESTS REPORT TENSILE RESULTS FOR INFORMATION PURPOSES ONLY FAX NBR: 201 438 4982 ATTENTION OF: BARBARA EBELING	
CH	C 28/33 MN 40/80 P 0250MX S 0100MX SI 15/35 NI 25MX CR 80/1.10 MO 15/25 AL RPT CU 35MX AK FINE GRAIN	
	<p>WCI Steel Metallurgical Services Inc. is accredited by the American Association for Laboratory Accreditation in the fields of chemical and mechanical testing, certification # 0814-01 and 02 expiration 06/30/99.</p>	

CERTIFICATION

JUDITH A. REICHERT, NOTARY PUBLIC
STATE OF OHIO
MY COMMISSION EXPIRES 5/29/2003



*** W C I S T E E L ***
METALLURGICAL SERVICES INC.
1040 PINE AVE. SE
WARREN, OHIO 44483-6528

033803

PAGE 2 of 8

1040 PINE AVE. SE
WARREN, OHIO 44483-6528

MELTED AND MANUFACTURED IN USA

PURCHASE ORDER:
08/07/98 5414

**C E R T I F I C A T E
O F T E S T S**

DATE/INVOICE: 12/02/98 899183759
WCI ORDER: 218 19 19789 01

SOLD TO:
BENEDICT-MILLER INC
P O BOX 912
LYNDHURST NJ 07071

SHIP TO:
BENEDICT-MILLER INC
MARIN AVE & ORIENT WAY
LYNDHURST NJ 07071

I certify that the properties of the items tested are true and accurate. Material was sampled, tested and inspected in accordance with the methods prescribed in the governing specifications. Subject material also conforms to the requirements of the governing specifications.

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D. H. Emanuel
President

Item Specification and Description 03:00:43

HEAT
NUMBER
2134252

RC 35 AFTER HEAT TREAT
RC 34 AFTER HEAT TREAT

FREQUENCY SEVERITY
.000 .000

MCQUAID
NORMALITY EHN
TYPE II NORMAL 8.0

WCI Steel Metallurgical Services Inc. is accredited by the American Association for Laboratory Accreditation in the fields of chemical and mechanical testing, certification # 0814-01 and 02 expiration 08/30/98.

JUDITH A. REICHERT, NOTARY PUBLIC
STATE OF OHIO
MY COMMISSION EXPIRES 5/29/2013

*** W C I S T E E L ***
 METALLURGICAL SERVICES INC.
 1040 PINE AVE. SE
 WARREN, OHIO 44483-6528

033803

MELTED AND MANUFACTURED IN USA	PURCHASE ORDER: 08/07/98 5414
C E R T I F I C A T E O F T E S T S	DATE/INVOICE: 12/02/98 699183759 WCI ORDER: 218 18 19789 01
SOLD TO: BENEDICT-MILLER INC P O BOX 912 LYNDHURST NJ 07071	SHIP TO: BENEDICT-MILLER INC MARIN AVE & ORIENT WAY LYNDHURST NJ 07071
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D.H. Emanuel President <i>D.H. Emanuel</i>	

Item	Specification and Description					03:00:43								
	HEAT NUMBER	COIL NUMBER	YIELD PSI	TENSILE PSI	ELONG 2"	DIR								
	2134252	H237501	58790	83990	27.4	T								
	DECARB (INCHES) % .0001 00.0													
	RA 72 BEFORE GRIND, RA 74 AFTER GRIND													
	<table border="0"> <tr> <td>HARD-NESS</td> <td>BEND TEST</td> <td>DIR</td> </tr> <tr> <td>RB82</td> <td>OK</td> <td>T</td> </tr> </table>						HARD-NESS	BEND TEST	DIR	RB82	OK	T		
HARD-NESS	BEND TEST	DIR												
RB82	OK	T												
	<table border="0"> <tr> <td>YIELD PSI</td> <td>TENSILE PSI</td> <td>ELONG 2"</td> <td>DIR</td> </tr> <tr> <td>58790</td> <td>83990</td> <td>27.4</td> <td>T</td> </tr> </table>						YIELD PSI	TENSILE PSI	ELONG 2"	DIR	58790	83990	27.4	T
YIELD PSI	TENSILE PSI	ELONG 2"	DIR											
58790	83990	27.4	T											
	DECARB (INCHES) % .0001 00.0													

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 STATE OF OHIO
 MY COMMISSION EXPIRES 5/29/2003

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PAGE 4 OF 8				
MELTED AND MANUFACTURED IN USA	PURCHASE ORDER: 08/07/98 5414			
C E R T I F I C A T E O F T E S T S	DATE/INVOICE: 12/02/98 899183759 WCI ORDER: 218 19 19789 01			
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Item	Specification and Description			
	03:00:43			
HEAT COIL NUMBER NUMBER 2134252 H237501 2	RA 72 BEFORE GRIND, RA 74 AFTER GRIND			
	HARD- NESS RB82	BEND TEST DIR OK T		
	YIELD PSI H237501 3	TENSILE PSI 56790	ELONG 2" 27.4	DIR T
	DECARB (INCHES) % .0001	00.0		
RA 72 BEFORE GRIND, RA 74 AFTER GRIND				
	HARD- NESS RB82	BEND TEST DIR OK T		
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JUDITH A. REICHERT, NOTARY PUBLIC
STATE OF OHIO
MY COMMISSION EXPIRES *5/29/2003*

*** W C I S T E E L *** METALLURGICAL SERVICES INC. 1040 PINE AVE. SE WARREN, OHIO 44483-8528				033803
PAGE 5 OF 8		PURCHASE ORDER: 08/07/98 5414		
MELTED AND MANUFACTURED IN USA		DATE/INVOICE: 12/02/98 688183759 WCI ORDER: 218 19 18789 01		
CERTIFICATE OF TESTS		SHIP TO: BENEDICT-MILLER INC MARIN AVE & ORIENT WAY LYNDHURST NJ 07071		
SOLD TO: BENEDICT-MILLER INC P O BOX 912 LYNDHURST NJ 07071				
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Item	Specification and Description			03:00:43
	HEAT NUMBER	COIL NUMBER	YIELD PSI	TENSILE PSI
	2134252	H237501	56790	83990
		4	2"	ELONG 27.4 DIR T
	DECARB (INCHES) % .0001 00.0			
	RA 72 BEFORE GRIND, RA 74 AFTER GRIND			
	HARDNESS TEST DIR R882 OK T			
		YIELD PSI	TENSILE PSI	ELONG 2" DIR
	H237501	5	56790	83990
		27.4		T
	DECARB (INCHES) % .0001 00.0			
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JUDITH A. REICHERT, NOTARY PUBLIC
STATE OF OHIO
MY COMMISSION EXPIRES 5/29/2003

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METALLURGICAL SERVICES INC.
1040 PINE AVE. SE
WARREN, OHIO 44483-8528

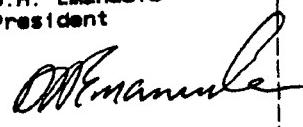
033803

PAGE 8 of 8

MELTED AND MANUFACTURED IN USA	PURCHASE ORDER: 08/07/88 5414
C E R T I F I C A T E O F T E S T S	DATE/INVOICE: 12/02/98 599183758 WCI ORDER: 218 19 19789 01
SOLD TO: BENEDICT-MILLER INC P O BOX 912 LYNDHURST NJ 07071	SHIP TO: BENEDICT-MILLER INC MARIN AVE & ORIENT WAY LYNDHURST NJ 07071

I certify that the properties of the items tested are true and accurate. Material was sampled, tested and inspected in accordance with the methods prescribed in the governing specifications. Subject material also conforms to the requirements of the governing specifications.
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D.H. Emanuel
President



03:00:43

Item	Specification and Description
	HEAT COIL NUMBER NUMBER 2134252 H237501 5 RA 72 BEFORE GRIND, RA 74 AFTER GRIND
	HARD- BEND NESS TEST DIR RB82 OK T
	YIELD TENSILE ELONG PSI PSI 2" DIR 58330 82330 24.6 T
I338101R 1	RA 74 BEFORE GRIND, RA 72 AFTER GRIND
	DECARB (INCHES) % .0001 00.0
	HARD- BEND NESS TEST DIR RB84 OK T
	WCI Steel Metallurgical Services Inc. is accredited by the American Association for Laboratory Accreditation in the fields of chemical and mechanical testing, certification # 0814-01 and 02 expiration 08/30/98.

JUDITH A. REICHERT, NOTARY PUBLIC
STATE OF OHIO
MY COMMISSION EXPIRES 5/29/2003

*** W C I S T E E L *** METALLURGICAL SERVICES INC. 1040 PINE AVE. SE WARREN, OHIO 44483-6528						033803
PAGE 7 OF 8	MELTED AND MANUFACTURED IN USA	PURCHASE ORDER: 08/07/88 5414				
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Item	Specification and Description					03:00:43
	HEAT NUMBER 2134252	COIL NUMBER I338101R 2	YIELD 58330	TENSILE 82330	ELONG 24.6	DIR T
RA 74 BEFORE GRIND, RA 72 AFTER GRIND						
DECARB (INCHES) % .0001 00.0						
HARD- BEND NESS TEST DIR R884 OK T						
YIELD TENSILE ELONG PSI PSI 2" DIR 58330 82330 24.6 T						
I338101R 3						
RA 74 BEFORE GRIND, RA 72 AFTER GRIND						
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JUDITH A. REICHERT, NOTARY PUBLIC
STATE OF OHIO
MY COMMISSION EXPIRES *5/29/2003*

PAGE 8 OF 8

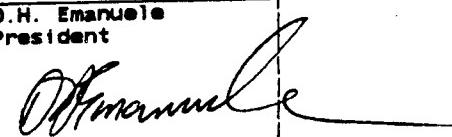
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1040 PINE AVE. SE
WARREN, OHIO 44483-6528

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President



03:00:43

Item	Specification and Description		
	HEAT NUMBER	COIL NUMBER	DECARB (INCHES) %
	2134252	I338101R 3	.0001 00.0

HARD-NESS TEST DIR
RB84 OK T

YIELD PSI TENSILE PSI ELONG 2"
I338101R 4 58330 82330 24.6 DIR

RA 74 BEFORE GRIND, RA 72 AFTER GRIND

DECARB
(INCHES) %
.0001 00.0

HARD-NESS TEST DIR
RB84 OK T

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JUDITH A. REICHERT, NOTARY PUBLIC

STATE OF OHIO

MY COMMISSION EXPIRES 5/29/2003